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IS 9534 (1980): Projectors usage of 8 mm type S motion picture film for direct front projection [MED 32: Photographic Equipment]



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Indian Standard

SPECIFICATION FOR PROJECTOR USAGE OF 8 mm TYPE S MOTION-PICTURE FILM FOR DIRECT FRONT PROJECTION

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INDIAN STANDARDS INSTITUTION
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Indian Standard

SPECIFICATION FOR PROJECTOR USAGE OF 8 mm TYPE S MOTION-PICTURE FILM FOR DIRECT FRONT PROJECTION

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(Continued on page 2)

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(Continued from page 1)

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Indian Standard

SPECIFICATION FOR PROJECTOR USAGE OF 8 mm TYPE S MOTION-PICTURE FILM FOR DIRECT FRONT PROJECTION

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 26 June 1980, after the draft finalized by the Cinematographic Equipment Sectional Committee had been approved by the Electrotechnical Division Council.

0.2 This standard lays down the projector usage of 8 mm type S motion-picture film for direct front projection.

0.3 This sound speed recommendation of 24 frames per second (*see 4*) is primarily intended for professional application of 8 mm type S sound motion-picture photography.

0.4 It is expected that the amateur, in using single-system sound or in using post-processed magnetically striped film, may record his sound at 18 frames per second, as limited by the speed of his original photography or his desire to conserve film stock.

0.5 In preparing this standard, assistance has been derived from ISO 1781-1973 'Cinematography — Projector usage of 8 mm type S motion-picture film for direct front projection', issued by the International Organization for Standardization (ISO).

0.6 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard specifies the emulsion orientation, the rate of projection and the position of the image area for 8 mm type S motion-picture film as used for direct front projection.

*Rules for rounding off numerical values (*revised*).

2. CHARACTERISTICS

2.1 The emulsion orientation of sound or silent release prints shall be toward the projection lens when the film is threaded for direct front projection, as shown in Fig. 1.

NOTE 1 — This standard is feasible since an intermediate optical or contact step, necessary for quantity reproduction, can be arranged to produce prints with the recommended orientation. A common emulsion orientation facilitates intercutting among 8 mm type S release prints and reversal original 8 mm type S material.

NOTE 2 — It is recognized that some users will require contact reversal prints from original 8 mm type S, particularly in the amateur field, but since these would not be intercut with commercial prints, picture focus should not be a problem. Reversal reduction prints can be made easily to comply with the recommended practice.

3. POSITION OF IMAGE

3.1 The perforation used for the film transport claw shall be two perforations above the perforation adjacent to the projected aperture when the transport claw is at the bottom of its stroke (the — 2 position).

NOTE 1 — This location coincides with the vertical transport claw location required of 8 mm type S camera original film and thereby improves steadiness through cancellation of any variation of the perforation pitch.

NOTE 2 — The dimensions of the maximum image projected relative to the engaged film positioning perforation are specified in IS : 9577-1980*. It is customary to provide a framing movement of approximately 0.38 mm above and below this position.

NOTE 3 — In specifying the film transport claw in 3, the existence of projectors which use other than the 2 perforation to position the film is recognized. Future design, however, is expected to comply with the specification in this standard.

4. RATE OF PROJECTION

4.1 The usual rate of projection shall be 18 frames per second for silent use and 24 frames per second for sound use (see 0.1 and 0.2).

NOTE 1 — In silent projectors having a fixed rate of projection, the rate shall be 18 frames per second with a tolerance appropriate for its intended use. Silent projectors having manually adjustable speed shall be capable of reaching a projection rate of 18 frames per second.

*Specification for position and dimensions of image area produced by 8 mm type S motion-picture camera aperture and maximum projectable image area (under preparation).

NOTE 2 — It is recognized that under certain conditions, silent material originally photographed at 18 frames per second or at 24 frames per second may be projected at 24 frames per second.

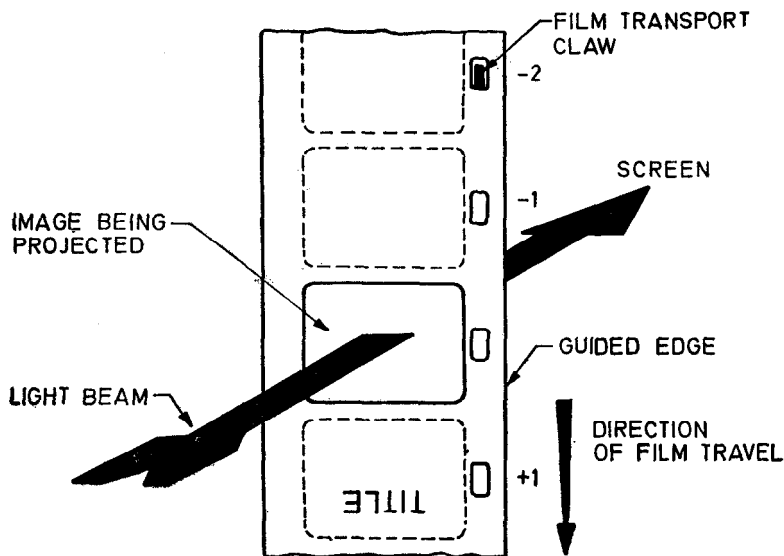


FIG. 1 THE FILM IS SHOWN AS SEEN FROM THE LIGHT SOURCE IN THE PROJECTOR

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ON

CINEMATOGRAPHIC EQUIPMENT

IS:

- 1885 (Part XXXIV)-1972 Electrotechnical vocabulary: Part XXXIV Cinematography
4495-1968 Method of measurement of light output of cinematograph projectors (for narrow gauge film)
4496-1968 Screen luminance for the projection of 16 mm film by incandescent lamps
4497-1977 16-mm portable sound-and-picture cinematograph projectors (*first revision*)
5260-1969 Test films for sound-and-picture cinematograph projectors: Buzz-track test film
5261-1969 Test films for sound-and-picture cinematograph projectors: Sound focusing test film
5262-1969 Test films for sound-and-picture cinematograph projectors: Registration test film
5263-1969 Test films for sound-and-picture cinematograph projectors: Multi-frequency test film
5264-1969 Test films for sound-and-picture cinematograph projectors: 3 000 Hz flutter test film
5265-1969 Test films for sound-and-picture cinematograph projectors: Sound-and-picture test film
5266-1969 Test films for sound-and-picture cinematograph projectors: 400 Hz signal level test film
5353-1969 Screen luminance for the projection of 35 mm film on matt and directional screens
5636-1970 Cans for 16 mm projector spools
5673-1970 Methods of tests for still projectors
5674-1970 16-mm projector spools
5700-1977 Cinematograph screens (*first revision*)
5778-1970 Still projectors
6084-1971 Dimensions for 16 mm motion picture film
6085-1979 Dimensions for 35 mm motion picture film (*first revision*)
6095-1971 Cans for 35 mm motion picture films
6096-1971 Dimensions for sprockets for 35 mm motion picture projectors
6097-1971 Dimensions for cores for motion picture and magnetic films
6119-1971 Carbon arc lamps for motion picture projection
6561-1972 Test film for 35 mm motion picture sound reproducer: Buzz-track test film
6562-1972 Test film for 35 mm motion picture sound reproducer: 1 000 Hz balancing and signal level test film
6563-1972 Test film for 35 mm motion picture sound reproducer: Sound-focusing test film
6564-1972 Test film for 35 mm motion picture sound reproducer: Scanning beam uniformity test film
6933-1973 35 mm portable motion picture projectors
6937-1973 Overhead projectors
7390-1974 3 000 Hz flutter test film for 35 mm motion picture sound reproducers, photographic type
7397-1974 Guide for electro-acoustic response of the final chain of motion picture sound reproduction system
7791-1975 Projector alignment test film for 35 mm motion-picture sound reproducers
7848-1975 Studio spot lights for use in motion picture studios
9125-1979 Arc lamp carbons for use in cinemas
9535-1980 Dimensions for 8 mm type S motion picture raw stock film
9534-1980 Projector usage of 8 mm type S motion picture film for direct front projection